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Every minute you spend in **planning** saves 10 minutes in execution; this gives you a 1,000 percent Return on Energy!

\- *Brian Tracy*

SAGE SUMMER SCHOOL

The SAGE GROUP

Know your trainer

- B Tech - Electrical and Electronics Engineering (VIT, Vellore)
- 7+ years in IoT and Hardware Industry
- Co-Founded 2 startups
- Developed 50+ deployable prototypes, 3 hardware products
- Helped 5+ startups in building Hardware products
- Mentored 4000+ students, professionals, and professors in IoT
- Consulted 100+ Global companies (Like Bosch, Capgemini, Wilhelmsen, Deutsche Bahn, WeWork) in IoT deployment
- …….

Atul Dubey
(Co-founder - DataTurtles)

About DataTurtles

We are a **"Product Development Service (Dev Shop)"** company, dealing with Software, Hardware, and AI.

Till now, we have:

- Developed one end-to-end Marketplace
- Developed 10+ software and automations solutions
- Built 5 IoT solutions
- Consulted 2 Companies on AI and Big Data
- 2 hardware products and 1 AI service is still in progress

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www.dataturtles.com

Agenda for today's session

- Why are we here?
- Clearing expectations from the training sessions
- Why IoT?
- Skills beyond Technology
- What is IoT?
- Fundamental elements of IoT
- Do we really need IoT?
- Benefits of IoT
- Discussion of projects that students are already working on

Why are we gathered here?

1. To learn IoT?
2. To learn something that can help pass exams?
3. To pass time?
4. To do something different?
5. To learn something beyond academics which can be useful for career?
6. Complete final year projects?
7. No Idea…..

A good teacher is who leaves more questions than he answers

What you can expect from the sessions

1. A lot of questions
2. Guidelines to get started in IoT career
3. Building and deploying IoT devices
4. At least 2 end-to-end guided IoT projects
5. At least 3 prized challenges, where you will get resources but you will need to complete the projects on your own.
6. One small challenge every day. Person who completes all the challenges will have a surprise at the end of the training.

Why IoT?

Career Opportunities:

- IoT Embedded Engineer
- IoT Application Engineer
- IoT Architect: map business needs to the system and technical requirements
- Chief Internet Of Things Officer(CIoTO)
- Related job roles:
  - Cloud Engineer
  - Designer
  - Network Engineer
  - Data Scientist
  - Data Visualization Expert
  - Instrument Engineers
  - Programmer

Note: Every industry needs IoT and so all of the above jobs apply to all the industries

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Is knowledge of Technology enough for “Industry Readiness”?

Skills beyond technology

- Organizing ✔
- Planning ✔
- Communication ✔
  - Verbal
  - Written
- Attitude ✔
  - Towards work
  - Towards problems
- Mindset ✔
- …..

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Introduction to IoT

The world of connected devices

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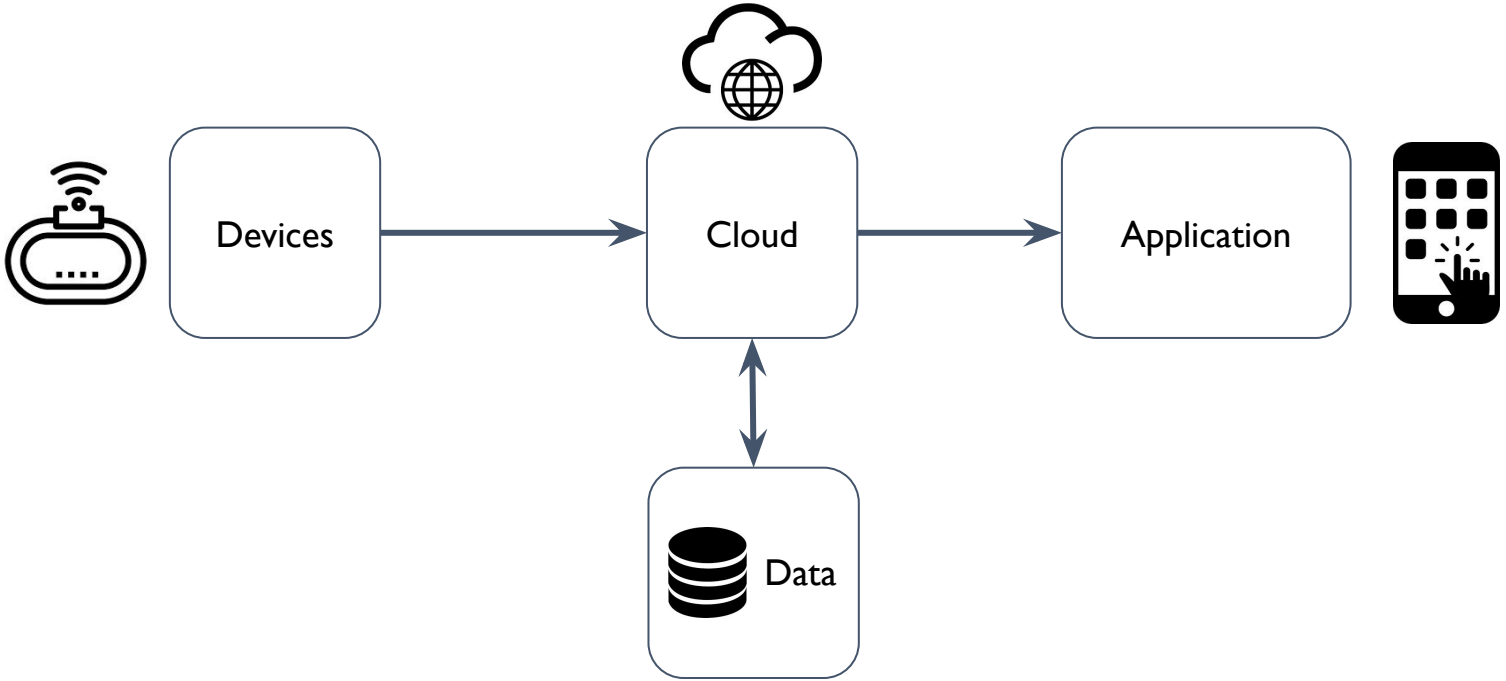
What is IoT?

Is it:

1. Device connected to internet?
2. Device having sensors?
3. System of devices communicating with each other over a network?
4. Set of machines talking to each other?
5. Bunch of devices collecting data?
6. Device to make things smart?
7. ……

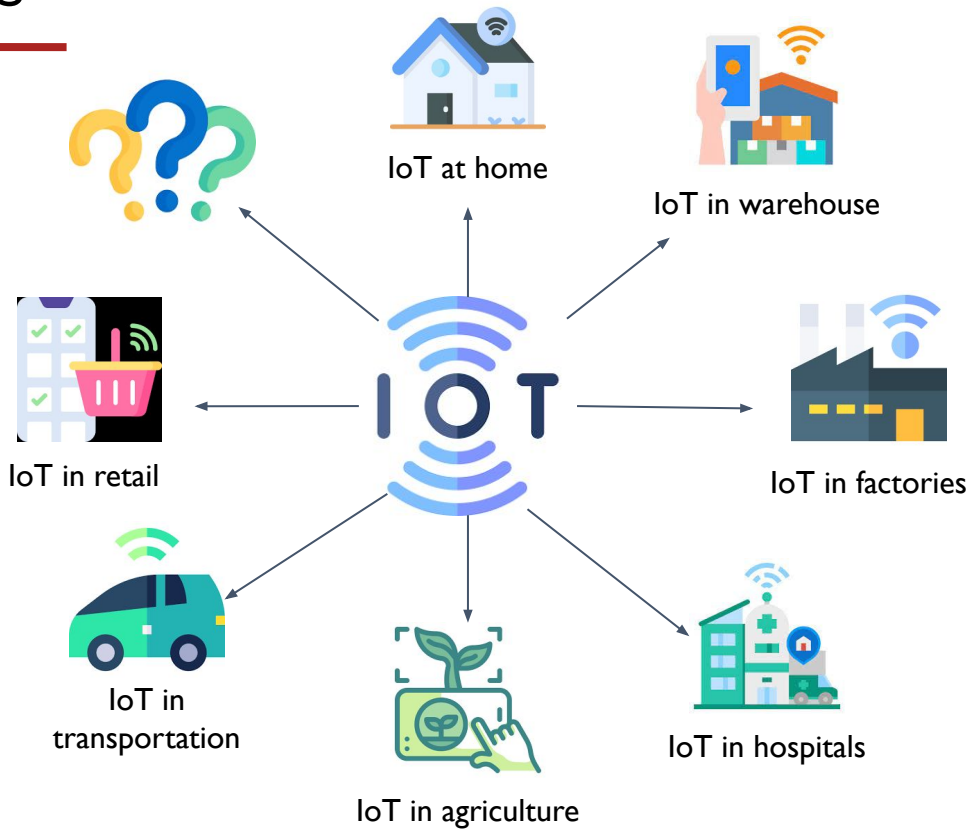
What does IoT mean?

Fundamental Elements of IoT



Do we really need IoT?

IoT Verticals



Benefits of IoT

1. **Efficiency**: Improved efficiency and productivity in various industries.
2. **Automation**: Streamlined processes and reduced human intervention.
3. **Cost Savings**: Optimized resource utilization and reduced operational costs.
4. **Enhanced Decision** Making: Real-time data enables better decision-making.
5. **Improved Quality of Life**: Smart homes, wearable devices, and healthcare advancements improve our daily lives.

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Are you working on something already?

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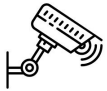
One problem around you that we can solve using IoT

At home

Smart Lights

Smart door lock



Smart camera

Smart Thermostat

Smart Doorbell

Smart Switches

Smart curtains

Smart fans

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Thank you

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GROUP VENTURES

M/s Agrawal Construction Co. (The SAGE Group)

SIRT SAGE GROUP OF INSTITUTIONS
Engineering • Management • Pharmacy

SAGE INTERNATIONAL SCHOOL

SAGE UNIVERSITY INDORE

Apollo Sage HOSPITALS

APPL